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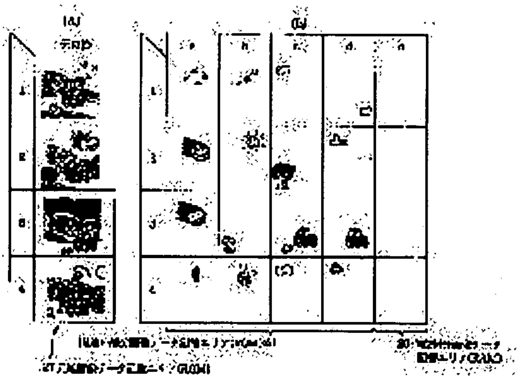
(54) **IMAGE DISPLAY CONTROL DEVICE**

(57)Abstract:

PROBLEM TO BE SOLVED: To provide a display control device permitting to dispay a picture fully stimulating a play-game mind even with a small memory capacity.



SOLUTION: A ROM is provided with picture data storage area 27 for original pictures shown in (A) and picture data storage area 28 for wrong parts shown in (B). Picture data for the entire original pictures for displaying No.1 to No.4 pictures are stored in the picture data storage area 27 for the original pictures. The wrong part picture data storage area 28 is divided into an area with four rows and four columns, and in each row of No.1 to 4 and in each column of (a) to (d), partially wrong picture data capable of displaying a partially wrong picture different from a part of the partial parcture corresponding to the No1. to No.4 original pictures are stored. Picture data for the entire original pictures and those for the partially wrong pictures are synthesized, and the partially wrong pictures, which are partially different from the original ones, are displayed as well as the original pictures, and an error seeking game is played.

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DETAILED DESCRIPTION

[Detailed Description of the Invention]
[0001]
[Field of the Invention] This invention relates to the image display control unit which can be used playfully.
[0002]
[Description of the Prior Art] Conventionally, in the device which has screens, such as electronic equipment for children, what generates various playful functions by display on a screen is known. For example, the image in a screen is displayed and various games can be performed by operating a display image by external actuation of a key etc.
[0003]
[Problem(s) to be Solved by the Invention] However, in case two sorts of different images are displayed on the screen of said electronic equipment and the search game for a mistake is performed, when displaying two sorts of different images on a screen, the image data for every image is memorized in memory, and a partially different image to the image used as the image which serves as criteria based on each image data, and these criteria is made displayed. Therefore, the storage capacity for memorizing the image data corresponding to each whole image will be needed for memory, and required memory space will be huge.
[0004] It is difficult to, carry out the seed storage of many image data of the image used as criteria, and the whole image which is different on a partial target on the other hand, since a limitation is in memory space in a small device like an electronic notebook. Therefore, the image which can be displayed decreases and the play alignment of the child who uses the electronic notebook concerned cannot fully be stimulated.
[0005] This invention is made in view of such a conventional technical problem, and aims at offering the display control which can perform the display which is small memory space and can fully stimulate a play alignment.
[0006]
[Means for Solving the Problem] If it is in this invention in order to solve said technical problem The 1st storage means which has memorized the whole image data on which a whole image is displayed, The 2nd storage means which has memorized the partial image data on which a partial image which is equivalent to said some of whole images, and is different from some of partial images concerned is displayed, Said whole image data memorized by said each storage means and said partial image data are compounded. It has the display-control means on which a synthetic image data generation means to generate the synthetic image data on which the synthetic image which changed said some of whole images is displayed, the whole image based on said whole image data, and the synthetic image based on said synthetic image data are displayed.
[0007] In this configuration, a synthetic image data generation means compounds the whole image data memorized by the 1st storage means and the partial image data memorized by the 2nd storage means, and generates synthetic image data. Then, a display-control means displays the synthetic image which changed some whole images based on the synthetic image data generated by the synthetic image data generation means while displaying a whole image based on the whole image data memorized by the 1st storage means. Therefore, although it is necessary to make the 1st storage means memorize the whole image data on which a whole image is displayed, if the partial image data which displays a partial image on the 2nd storage means is made to memorize, it will become possible to display the image of a pair which consists of a whole image and a whole image which changed the part.
[0008] Moreover, in this invention, said 2nd storage means memorizes two or more sorts of partial image data, and said synthetic image data generation means chooses either at random from two or more sorts of partial image data, and it is

constituted so that said synthetic image data may be generated. Therefore, while it becomes indefinite what kind of synthetic image data is generated, it becomes indefinite what kind of synthetic image is displayed based on this synthetic image data, and, thereby, a hope is stimulated.

[0009] In this invention, said 1st storage means memorizes two or more sorts of said whole image data. Moreover, said 2nd storage means Two or more sorts of partial image data is memorized for whole each image data of every. Said synthetic image data generation means Either is chosen at random from two or more partial image data corresponding to the whole image data concerned, and said synthetic image data is generated. Said display-control means It is constituted so that the image of a pair which consists of a whole image based on whole image data and a synthetic image based on said synthetic image data may be indicated by sequential with a predetermined time interval. Therefore, a sequential indication of the image of a pair which consists of a whole image and a whole image which changed the part will be given for example, at intervals of 1 second.

[0010] Moreover, it is controlled by said display-control means, and while having further a display means to indicate said image by sequential, in the image of the pair displayed on this display means, it has an assignment means to specify a different part from the synthetic whole image image. Therefore, the search game for a mistake is attained by specifying the part of the synthetic image which differs from a whole image with this assignment means.

[0011] Moreover, in this invention, said assignment means is constituted by the touch of a different part from said synthetic whole image image on the screen which said display means has so that said assignment may be performed. Therefore, the search game for a mistake will advance by the touch to the screen which is easy actuation.

[0012] Moreover, this invention has further a count means to count the mark corresponding to the partial image data of the part specified by said assignment means while having further a mark storage means memorized by said 2nd storage means by which mark are memorized for two or more sorts of every partial image data. Therefore, said search game for a mistake is advanced, and if the part of a different synthetic image from a whole image is specified, mark will change in connection with this.

[0013] Moreover, this invention has further a creation means create said partial image data, and the 3rd storage means which memorizes the partial image data created by this creation means, and said synthetic image data generation means is constituted so that either of the partial image data memorized by the partial image data and the 3rd storage means which were memorized by said 2nd storage means may be used. Therefore, the synthetic image data by which a synthetic image data generation means is generated generates synthetic image data using the image data created by the arbitration memorized by the 3rd storage means in addition to the ready-made data beforehand memorized by the 2nd storage means. Therefore, synthetic image data other than predetermined is generated by the synthetic image data generation means, and it becomes possible [displaying the unique image which cannot be displayed] in having used the partial image data beforehand memorized by synthetic image data other than predetermined [this].

[0014] Moreover, a setting means to set up the mark to said partial image data by which this invention was created with said creation means, It has further a number storage means of set points to memorize the mark set up by this setting means, and said count means is constituted so that the mark memorized by said number storage means of set points may be counted according to said partial image data specified by said assignment means. That is, mark can be set up also to the partial image data created by arbitration, a synthetic image is displayed using the partial image data created by this arbitration, and the set-up mark are added when the assignment to this is made in the search game for a mistake.

[0015] In addition, it is constituted so that the mark counted with said count means may be decreased according to time amount until said assignment is made by said assignment means. Therefore, if the mistake part whose whole image is the part of a different synthetic image is discovered early and cannot be specified at the time of advance of the search game for a mistake, mark decrease according to this.

[0016]

[Embodiment of the Invention] Hereafter, the gestalt of 1 operation of this invention is explained according to drawing. As the gestalt of this operation applies this invention to the electronic notebook for children and shows it to drawing 1, two or more letter keys 8 which consist of a menu screen key 2, a cursor movement key 3, Enter key 4, a start key 5, an input key 6, a creation key 7, a figure, the alphabet, etc. are formed in the key input section 1 of this electronic notebook, and the actuation information on these keys 2-8 is inputted into CPU9. Moreover, the laminating of the tablet 12 is carried out to the display 11 driven by the display drive circuit 10, and the touch location to this tablet 12 is detected by the location detecting element 13, and is inputted into CPU9 as dot location data. CPU9 operates according to the data memorized by these input data and RAM14, the program memorized by ROM15, controls the display drive circuit 10 and the location detecting element 13, and performs all processings that are needed in this electronic notebook, such as performing write-in processing to RAM14. Moreover, CPU9 has a sound source inside and sound emission of the wave signal generated from this sound source is carried out through amplifier 16 and a loudspeaker 17.

[0017] The display register 18 which stores in RAM14 temporarily the image data displayed on a display 11, the flag M which shows the condition in the mode Counter N and Flag L which are used in the flow mentioned later For 1 second The mark at the time of the 1-second timer 19 to clock and the search game for a mistake mentioned later While the mark storage area 20 to store, the apex storage area 21 which stores the apex of this game, and the user created, the creation partial image data storage area 22 which can four-kind store the partial image data of **** is formed. furthermore, to RAM14 In MEMOREJISUTA 23 and schedule mode which input data is stored in MEMOMODO The schedule register 24 with which input data is stored, the synthetic image data storage area 25 which can four-kind store the whole **** image data while being compounded, and the number storage area 26 of set points are formed. The mark which the user set to this number storage area 26 of set points corresponding to the partial image data stored in said creation partial image data storage area 22 are memorized respectively.

[0018] the area which stored the program in said ROM15 -- ** -- the former pictures image data storage area 27 shown in drawing 2 (A), the mistake partial image data storage area 28 shown in this drawing (B), and the mistake partial mark storage area 29 shown in drawing 3 are both formed. The whole former picture image data on which the picture of the 1st - the 4th origin is displayed is memorized by the former pictures image data storage area 27, and this whole former picture image data is image data which can display the whole picture of the origin concerned, and has dot location data of each part which constitutes the picture of the origin concerned.

[0019] Said between ****** image data storage area 28 is classified into the field of four-line four trains, it corresponds to some pictures of the 1st - said 4th origin for every train of a-d at each line of 1-4, and the partial mistake image data on which **** between parts from which some of partial images concerned differ may be displayed is memorized with the dot location data in which the part of a corresponding whole image is shown. In addition, in this drawing 2 (B), four fields established in the train of e are the creation partial image data storage area 22 of said RAM14, and as mentioned above, while the user created, the partial image data of **** is memorized with the dot location data in which the part of a corresponding whole image is shown in this creation partial image data storage area 22.

[0020] Said between ****** mark storage area 29 is also classified into the field of four-line four trains, and the mark corresponding to the partial mistake image data memorized to each field of said four-line four trains are memorized by each line of 1-4 for every train of a-d. In addition, in this drawing 3 , four fields established in the train of e are the number storage areas 26 of set points of said RAM14, and the mark set to this number storage area 26 of set points as mentioned above corresponding to the partial image data which the user stored in said creation partial image data storage area 22 are memorized respectively.

[0021] Next, actuation of this example concerning the above configuration is explained according to the flow chart shown after drawing 4 . That is, CPU9 starts actuation according to the flow shown in drawing 4 with the injection of a power source, a menu screen key 2 distinguishes [actuation, now] whether it is or not (step A1), and a menu display will be performed if operated (step A2). The menu which becomes a display 11 from a "memorandum", a "game", a "schedule", and "TEL" by processing of this step A2 as shown in drawing 5 (a) is displayed.

[0022] Moreover, if it distinguishes whether it is in the condition of drawing 5 (a) that it is [11] under a menu display, i.e., a display, (step A3) and is [menu] under display when the menu screen key 2 is not operated, menu selection processing will be performed (step A4). This menu selection processing is processing for which the cursor 30 which consists of inverse video shown in drawing 5 (a) is moved to the location of the following menu according to actuation of a cursor movement key 3. Therefore, if a cursor movement key 3 is operated once after operating a menu screen key 2 as written to this drawing in addition, cursor 30 will move onto a "game."

[0023] And if it distinguishes whether Enter key 4 was operated if this step A4 was processed (step A5) and Enter key 4 is operated, the menu with which cursor 30 is located at that time will be set up as selection mode (step A6). therefore -- the case where Enter key 4 is operated in the condition of game mode being set up and having made cursor 30 agreeing on other menus in the condition of having made cursor 30 agreeing in a "game" like illustration when Enter key 4 was operated -- being concerned -- others -- the mode of a menu will be set up.

[0024] When the mode shifted to the condition, finishing [a setup], from the condition menu on display by performing processing of this step A6 and processing is again performed after a return, it distinguishes whether the mode set up by progressing with step A1 ->A3->A7 is MEMOMODO, and in being MEMOMODO, it performs memorandum processing (step A8). The Penn actuation dot location inputted into a tablet 12 by the touch alter operation by Penn on a display 11 is continuously detected by the location detecting element 13, character recognition is performed based on this continuous location detection, and MEMOREJISUTA 23 is made to memorize the alphabetic character concerned in this memorandum processing.

[0025] Moreover, when the mode set up is schedule mode, (step A9 performs YES) and schedule processing (step A10). The Penn actuation dot location inputted into a tablet 12 is continuously detected by the location detecting element 13 like the above-mentioned, character recognition is performed based on this continuous position coordinate, and the schedule register 24 is made to memorize in this schedule processing. Moreover, when the mode in which the (step A11 performed YES) and game processing mentioned later (step A12), and was set up when the set-up mode was game mode is not any of a memorandum, a schedule, and a game, either, all of the (step A7, A9, and A11 perform NO) and other mode processings.

[0026] Said game processing (step A12) is performed according to the flow shown in drawing 6 , and CPU9 distinguishes whether the start key 5 was operated first (step B1). And Flag L is reset while setting initial value "1" to Counter N, if a start key 5 is operated (step B-2). Next, the Nth whole former picture image data shown with the value of this counter N is read from the former pictures image data storage area 27 (step B3). If it distinguishes whether Flag L is set succeedingly (step B4) and is in the condition of L= 0, while corresponding to the value of Counter N, **** will be read at random (step B5).

[0027] That is, if it is in the condition of N= 1, in the line of "1" of drawing 2 (B), the partial image data of between **** will be read from one train of a-e at random. The original picture whole image data, and the partial image data of between **** are compounded so that the part corresponding to after an appropriate time in a former picture may be deleted and between **** may be inserted in the part concerned (step B7). Furthermore, the former picture based on the original picture whole image data and the former picture based on the compound image data display partially different **** between parts on a display 11 (step B8). It follows, for example, is in the condition of N= 1 now, and supposing the image data of **** is read while memorizing to the field of 1-a of drawing 2 (B) by processing of step B5, as shown in drawing 5 (c), the former picture which has "yoo-hoo" on the left-hand side of a display 11 will be displayed, and **** between parts which instead has "YATTA" in "yoo-hoo" will be displayed on right-hand side. In addition, the mark column 31 which shows current points is displayed on the upper part between a former picture and **** between parts. Moreover, the synthetic image data of **** between parts compounded at step B7 is memorized to the field to which the synthetic image data storage area 25 corresponds.

[0028] Thus, if a display process is performed at step B8, it will distinguish whether there is any touch input (step B9). That is, when it distinguishes whether ****** between **** between parts was touched by Penn and there is no touch input, the loop formation of step B9 ->B10 ->B9 is repeated until it distinguishes whether 1 second passed based on the total chronaxie of a timer 19 for 1 second (step B10) and 1 second passes it. And if there is no touch input until 1 second passes, after making Counter N count up (step B11), it distinguishes whether the value of Counter N was set to "5" (step B12), and if it is N!=5, processing from step B3 will be performed again. Therefore, if said touch input cannot be found, processing of step B4 - step B12 will be repeated 4 times, and by this, as shown in drawing 5 (c) - (f), the former pictures from the 1st to the 4th and **** between parts will be displayed at intervals of 1 second.

[0029] Moreover, if it becomes a counter N= 5, after setting Flag L (step B13), initial value "1" will be set to Counter N (step B14), and "5" will be reduced from the mark memorized by the points storage area 20 (step B15). therefore, the mark memorized by the points storage area 20 whenever the former pictures from the 1st to the 4th and **** between parts will be displayed -- every ["5"] -- decreasing -- this -- it decreases and mark are displayed on said mark column 31. In addition, the mark memorized by the points storage area 20 at the time of a game start are "0."

[0030] Moreover, if the former pictures from the 1st to the 4th and first half [of the 1st inning] **** between parts are shown, Flag L will be set at the above-mentioned step B13. Therefore, when the processing from step B3 is repeated, distinction of step B4 serves as YES and will progress with step B4->B6->B8. Therefore, in step B6, by 1st processing, it is the synthetic image data of **** between parts memorized in said synthetic image data storage area 25, and the synthetic image data corresponding to the value of Counter N is read, and display processing is performed at step B8 based on this read synthetic image data. Therefore, as drawing 5 is indicated to be (c) to (g), when processing from step B3 is performed repeatedly, a sequential indication of the same former picture and the same **** between parts as 4 sets displayed by the 1st processing will be given at intervals of 1 minute.

[0031] On the other hand, if the part where a user is considered to be ****** between **** between parts with Penn P, a finger, etc. is touched in the condition of having repeated the loop formation of step B9 ->B10 ->B9, it will progress to step B16 from step B9. And at this step B16, the touch location on the tablet 12 through a display 11 is detected based on the output from the location detecting element 13. Next, the dot location data of this detected touch location and the location of ****** between **** between parts are compared, and it distinguishes whether both are in agreement (step B17), and if both are inharmonious and are unjust solutions, processing to which sound emission is carried out [sound / non-answered correctly] will be performed (step B18). Thereby, sound emission is carried out [sound / which consists of "Buu" / non-answered correctly] from a loudspeaker 17.

[0032] Moreover, sound emission is carried out [sound / which will perform sound emission processing of a correct answer sound (step B19), and will "ping-pong" become as / show / in drawing 5 (e) / by processing of this step B19 if the dot location data of ****** between a touch location and **** between parts are in agreement and it is a correct answer as a result of distinction / in step B17 / correct answer] from a loudspeaker 17. Then, current mark are read from the points storage area 20, and while making it the correct answer at these read mark, the mark corresponding to ****** are added (step B21).

[0033] That is, as shown in drawing 5 (e), supposing it answers correctly in the condition that the 3rd former picture and **** between parts are displayed, ************ is a face at this 3rd picture. Moreover, the mark which **** between the face parts corresponding to the 3rd former picture is memorized to the field of "3-a" in the between ****** image data storage area 28 as shown in drawing 2 , and are memorized to the field of corresponding "3-a" in the ****** mark storage area 29 between drawing 3 are "3." moreover -- this -- a time -- points -- a storage area -- 26 -- memorizing -- having -- **** -- mark -- " -- zero -- " -- it was -- supposing -- a step -- B -- 21 -- processing -- " -- three -- " -- computing -- having -- while -- this -- computing -- having had -- " -- three -- " -- again -- points -- a storage area -- 20 -- memorizing -- having -- and -- mark -- a column -- 31 -- displaying -- having -- [-- drawing 5 -- (-- f --) -- reference --] .

[0034] And at step B22 following step B21, processing which mentioned above whether the all-questions correct answer was carried out about whether all-questions termination was carried out and the 1st that is, to the 4th search for a mistake after returning from step B22 to step B11, if it distinguished and the thing of an unjust solution still remained is performed. Moreover, if all questions are answered correctly, termination display processing is performed (step B23), and after displaying on a display 11 the old apex memorized by the apex storage area 21 and these points memorized by the points storage area 20, the game processing shown in this drawing 6 will be ended.

[0035] On the other hand, when [in step B1] a start key 5 is not operated as a result of distinction, it progresses to step B24, and other processings are performed, when it distinguishes whether the creation key 7 was operated and neither of both keys 5 and 7 are operated. Moreover, when the creation key 7 is operated without operating a start key 5, it progresses with step B1 ->B24 ->B25, and mistake creation processing is performed.

[0036] An Edit menu is displayed, while this mistake creation processing is performed according to the flow shown in drawing 7 and displaying the picture of N= 1, i.e., the 1st former picture, on a display 11 (step C1) (step C2). As shown in drawing 8 (a), the 1st former picture is displayed by processing of these steps C1 and C2, and icons, such as "Penn", an "eraser", and "blue" "green"" red", are displayed as an Edit menu. Next, if it distinguishes whether either of the Edit menus which consist of two or more of these icons was touched (step C3) and one of Edit menus is touched, the corresponding Edit menu, i.e., touched "Penn" and an "eraser", and a color will be set up (step C4).

[0037] Thus, by Penn whom the user has, after an Edit menu is set up, if the request part of the former picture currently displayed is touched, an image processing will be started corresponding to the menu set up by progressing with step C3 ->C5 ->C6 (step C6). That is, if the part touched in the former picture if the "rubber" was chosen with the Edit menu is eliminated and "Penn" and "red" are chosen, the image processing which adds a red streak to the touched part will be performed, and a former picture will be changed. Moreover, if an input key 6 is operated without performing a touch of an Edit menu and a touch of a former picture after this image processing is performed, only the image of a part which advanced with step C3 ->C5 ->C7 ->C8, and was changed will be memorized to the field to which the creation partial image data storage area 22 corresponds.

[0038] That is, if a "rubber" is chosen in the condition that the 1st former picture is displayed as shown in this drawing (b) and the "hoe" part of "yoo-hoo" of a former picture is touched as shown in drawing 8 (a), a this "hoe" part will be eliminated. Next, as shown in this drawing (c), "Penn" is chosen, and "yoo-hoo" will be changed by the "yappie" if

"Py" is written in the eliminated part. When an input key 6 is operated by after an appropriate time, it will memorize to the field of 1-e which the image data and dot location data of a "yappie" which are the changed part showed to the field corresponding to the 1st former picture of the creation partial image data storage area 22, i.e., drawing 2 , (B) by processing of step C8.

[0039] Moreover, at step C9 following step C8, a mark input display is performed, and as shown in drawing 8 (d), the alphabetic character and a "rectangular head" of "mark" are displayed on a display 11. Then, mark input process (step C10) is performed, and the mark corresponding to the changed part inputted using the numerical keypad prepared into said letter key 8 are displayed. Therefore, if "5" is inputted by actuation of a numerical keypad, as shown in drawing 8 (d), mark "5" will be displayed in "square". Furthermore, when an input key 6 is operated (step C11 is YES), mark storage processing (step C12) will be performed, and the inputted mark will be memorized in the field corresponding to the former picture which is the 1st of the number storage area 26 of set points, i.e., the field of 1-e shown in drawing 3 .

[0040] Moreover, when the processing from step C3 is repeated again and a cursor movement key 3 is operated, it progresses with step C3 ->C5 ->C7 ->C13 ->C14, and the value of Counter N is made to count up. Next, it distinguishes whether it was set to N= 5 (step 15), and if it is N!=5, after displaying the Nth former picture shown with the value of this counter N (step C17), processing from step C3 is performed. Moreover, if set to N= 5, after setting initial value "1" to Counter N (step C16), step C17 mentioned above will be processed and the processing from step C3 will be repeated. Therefore, by this mistake creation processing, while differing from **** between existing beforehand memorized by ROM15, and a user can make **** create and memorize, and creating, he can set up the mark of arbitration to ****. Therefore, the search game for a mistake can be made to perform, even if it is the case where this electronic notebook is continued and used, without getting bored.

[0041] In addition, although the case where this invention was applied to an electronic notebook was shown, of course in the gestalt of this example, it is applicable to a TV game etc. and exclusive game equipment, without restricting to this.

[0042]

[Effect of the Invention] The whole image data on which this invention makes it display that the whole image explained above, Correspond to some whole images, memorize the partial image data on which a different partial image from some of partial images concerned is displayed, and whole image data and partial image data are compounded. Lessening required memory space from generating the synthetic image data on which the synthetic image which changed some whole images is displayed, and having made it display the whole image based on whole image data, and the synthetic image based on synthetic image data The image which can be displayed can be diversified and the display which can fully stimulate a play alignment can be performed.

[0043] Moreover, while it becomes indefinite what kind of synthetic image data is generated by memorizing two or more sorts of partial image data, choosing either at random from two or more sorts of these partial image data, and generating said synthetic image data, it becomes indefinite what kind of synthetic image is displayed based on this synthetic image data, and, thereby, it can stimulate a hope.

[0044] Moreover, the whole image based on whole image data in said 1st storage means, The image of a pair which consists of a synthetic image based on the synthetic image data which chose either at random and generated it out of two or more partial image data Since it was made to indicate with a predetermined time interval by sequential, a sequential indication of the image of a pair which consists of a whole image and a whole image which changed the part will be given with a time interval predetermined [spaced / for example, / at 1 second], and the difficulty of the game at the time of performing the search game for a mistake can be raised.

[0045] Moreover, it becomes that it is possible in advancing the search game for a mistake easily by the touch to the screen which is easy actuation by the configuration which performs said assignment in the image of the pair displayed on the display means in a touch of a part which can attain the search game for a mistake electronically, and is different from the synthetic whole image image from having established an assignment means specify the part of a different synthetic image from a whole image.

[0046] Moreover, when the part of a synthetic image which said search game for a mistake is advanced since the mark corresponding to the partial image data of the part specified by the assignment means were counted, and is different from a whole image is specified, this invention can mark-ize the search game for a mark mistake in connection with this, and is **.

[0047] It enables it to create the partial image data of last sake. moreover, a mistake image -- table ** -- From having enabled it to display the image compounded also using this created partial image data In having used the partial image data memorized beforehand, it can do, although the unique image which cannot be displayed is displayed, and it can continue by this at a long period of time, and the interest alignment over the search game for a mistake can be stimulated.

[0048] Moreover, a setup of the mark to the created partial image data is enabled, the configuration of the mark in counting-according to partial image data specified by assignment means-set-up mark dirt and the search game for a mistake can also be changed, it can continue further at a long period of time, and the interest alignment over the search game for a mistake can be stimulated. Furthermore, since it was made to decrease mark according to time amount until the assignment to a mistake part is made, score change in the search game for a mistake can be used as a stimulus target.

[0049]

[Translation done.]

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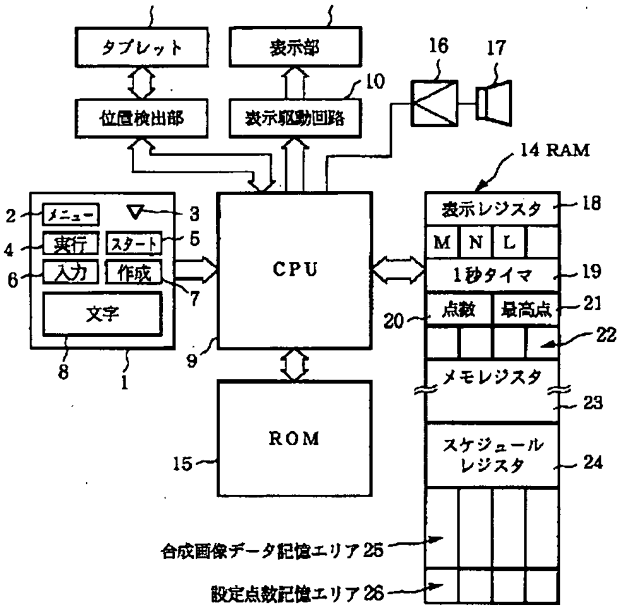
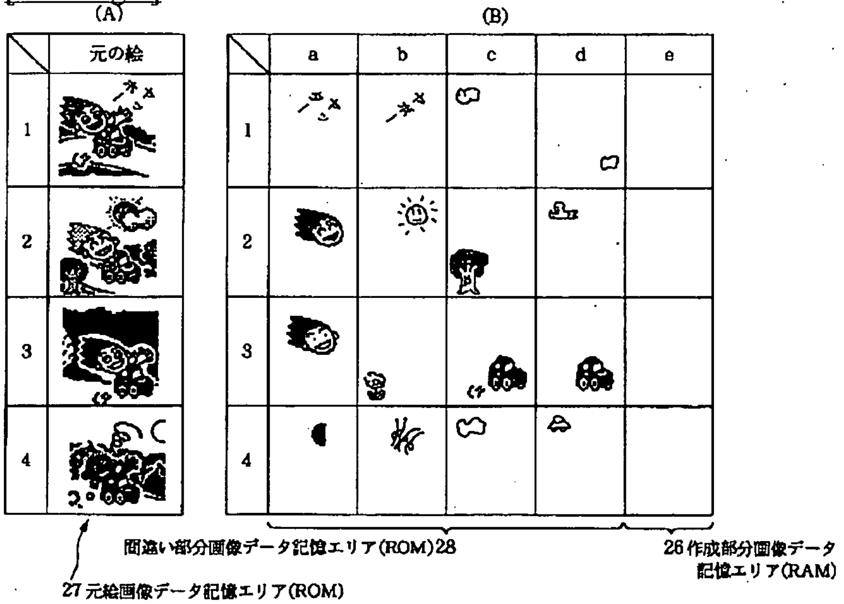
DRAWINGS

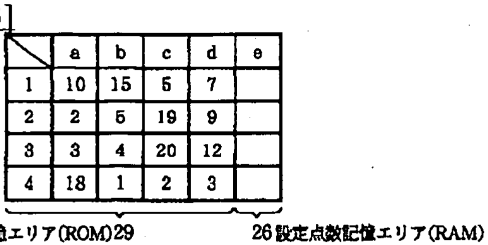
[Drawing 1]


12
11
タブレット
表示部
16
17
位置検出部
表示駆動回路
10
14 RAM
2
メニュー
3
4
実行
スタート
5
6
入力
作成
7
文字
8
1
CPU
9
ROM
15
表示レジスタ
18
M
N
L
1秒タイマ
19
20
点数
最高点
21
22
メモレジスタ
23
スケジュール レジスタ
24
合成画像データ記憶エリア 25
設定点数記憶エリア 26

[Drawing 2]


(A)
元の絵
1
2
3
4
(B)
a
b
c
d
e
1
2
3
4
間違い部分画像データ記憶エリア(ROM)28
26 作成部分画像データ記憶エリア(RAM)
27 元絵画像データ記憶エリア(ROM)

[Drawing 3]

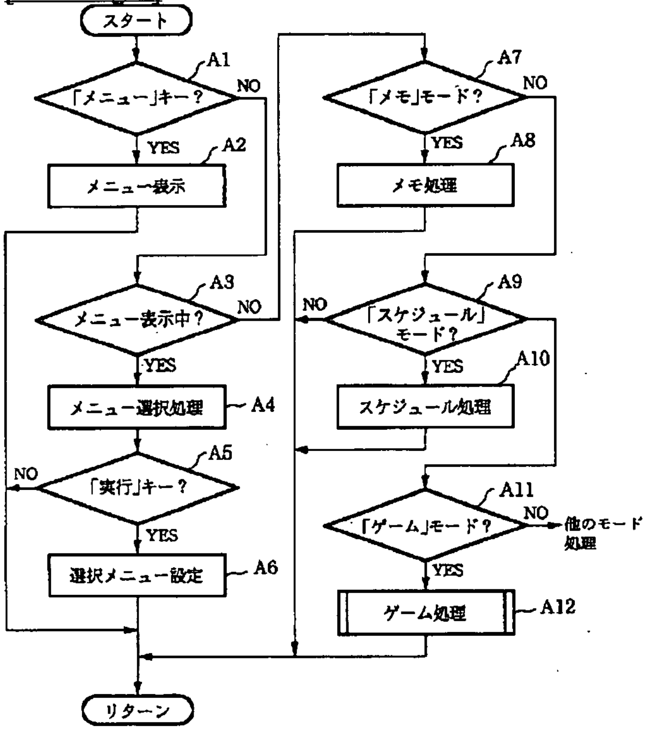


	a	b	c	d	e
1	10	15	5	7	
2	2	5	19	9	
3	3	4	20	12	
4	18	1	2	3	

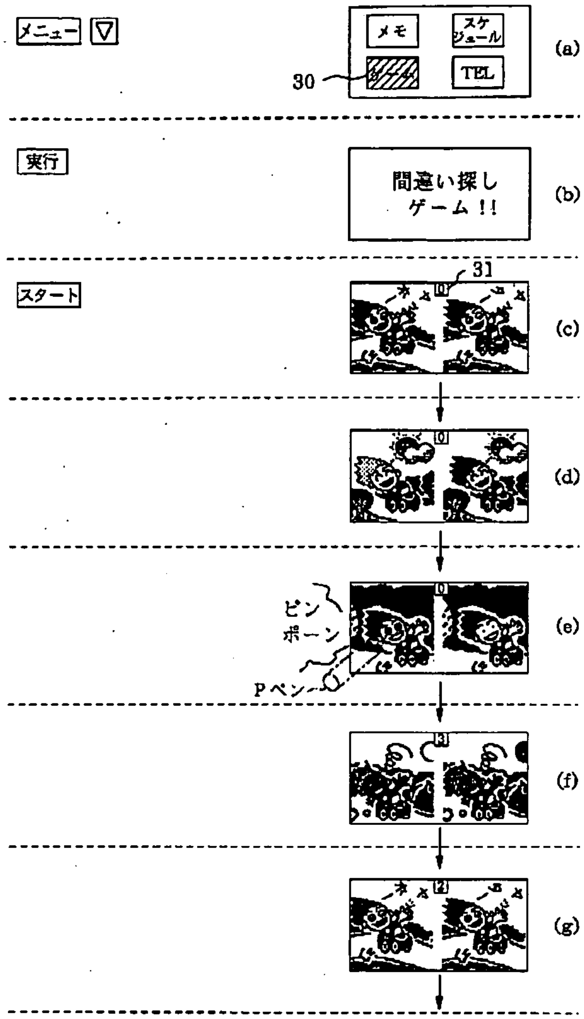
間違い部分点数記憶エリア(ROM)29

26設定点数記憶エリア(RAM)

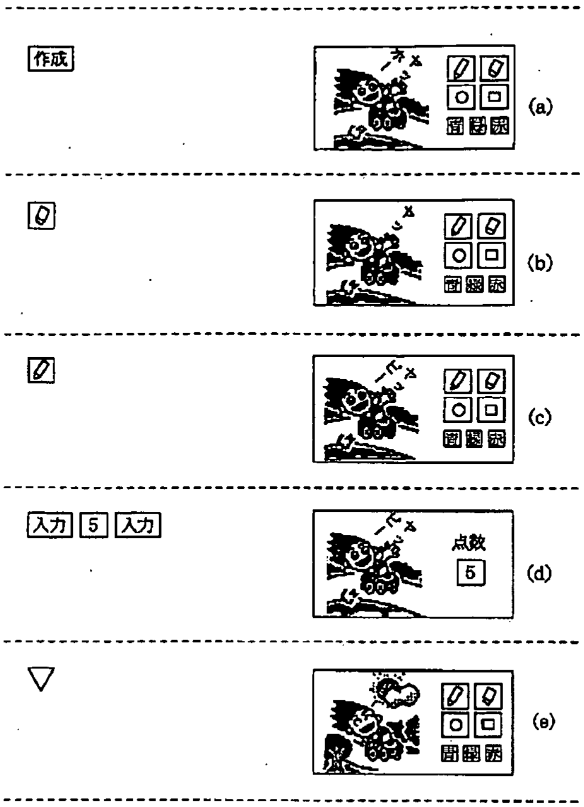
[Drawing 4]


スタート
A1
「メニュー」キー？
NO
YES
A2
メニュー表示
A3
メニュー表示中？
NO
YES
メニュー選択処理
A4
A5
NO
「実行」キー？
YES
選択メニュー設定
A6
A7
「メモ」モード？
NO
YES
A8
メモ処理
A9
NO
「スケジュール」モード？
YES
A10
スケジュール処理
A11
「ゲーム」モード？
NO
他のモード処理
YES
ゲーム処理
A12
リターン

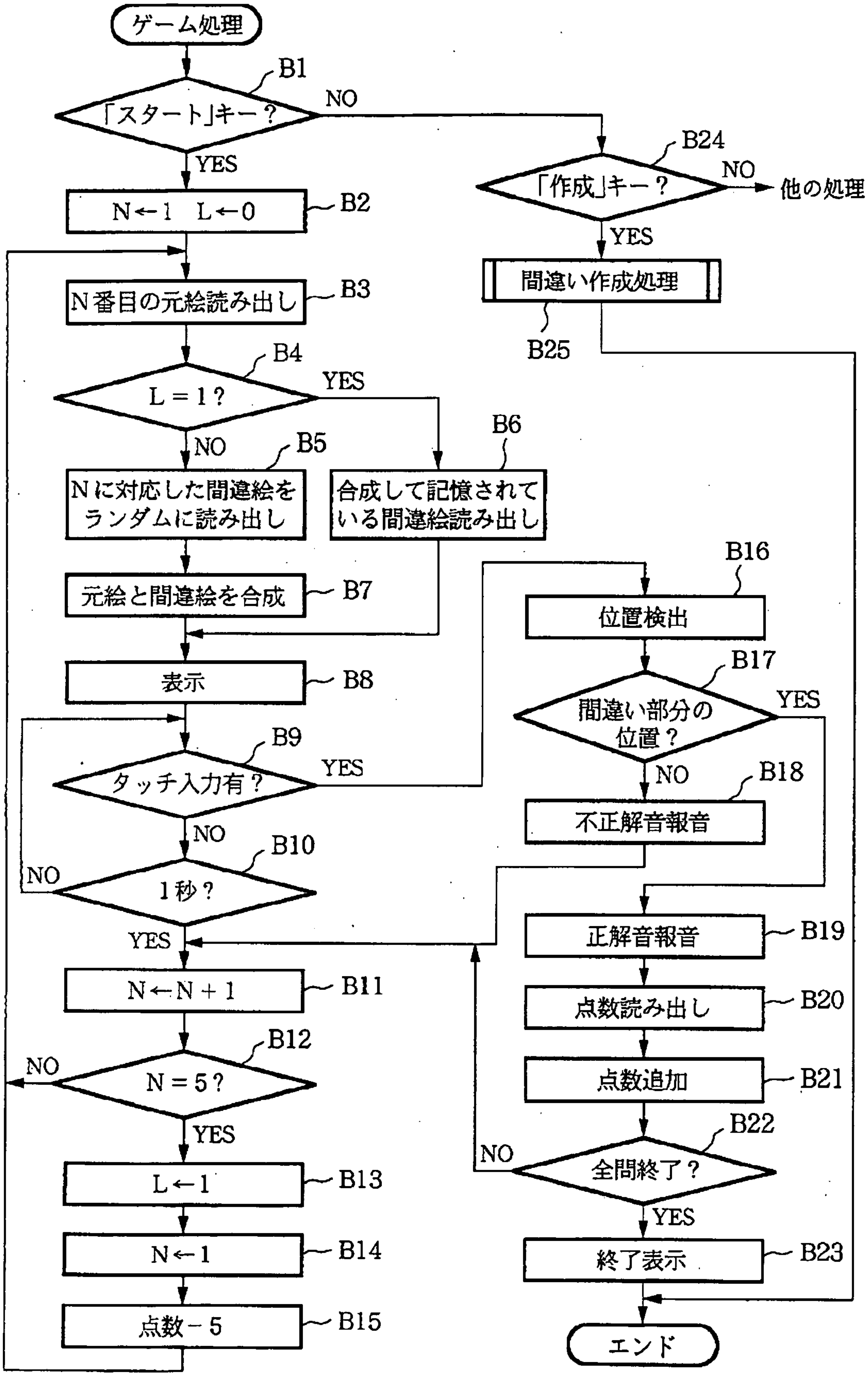
[Drawing 5]


メニュー ▽
メモ
スケジュール
ゲーム
TEL
30
(a)
実行
間違い探しゲーム!!
(b)
スタート
31
0
(c)
0
(d)
0
ピンポーン
Pペン
(e)
3
(f)
2
(g)

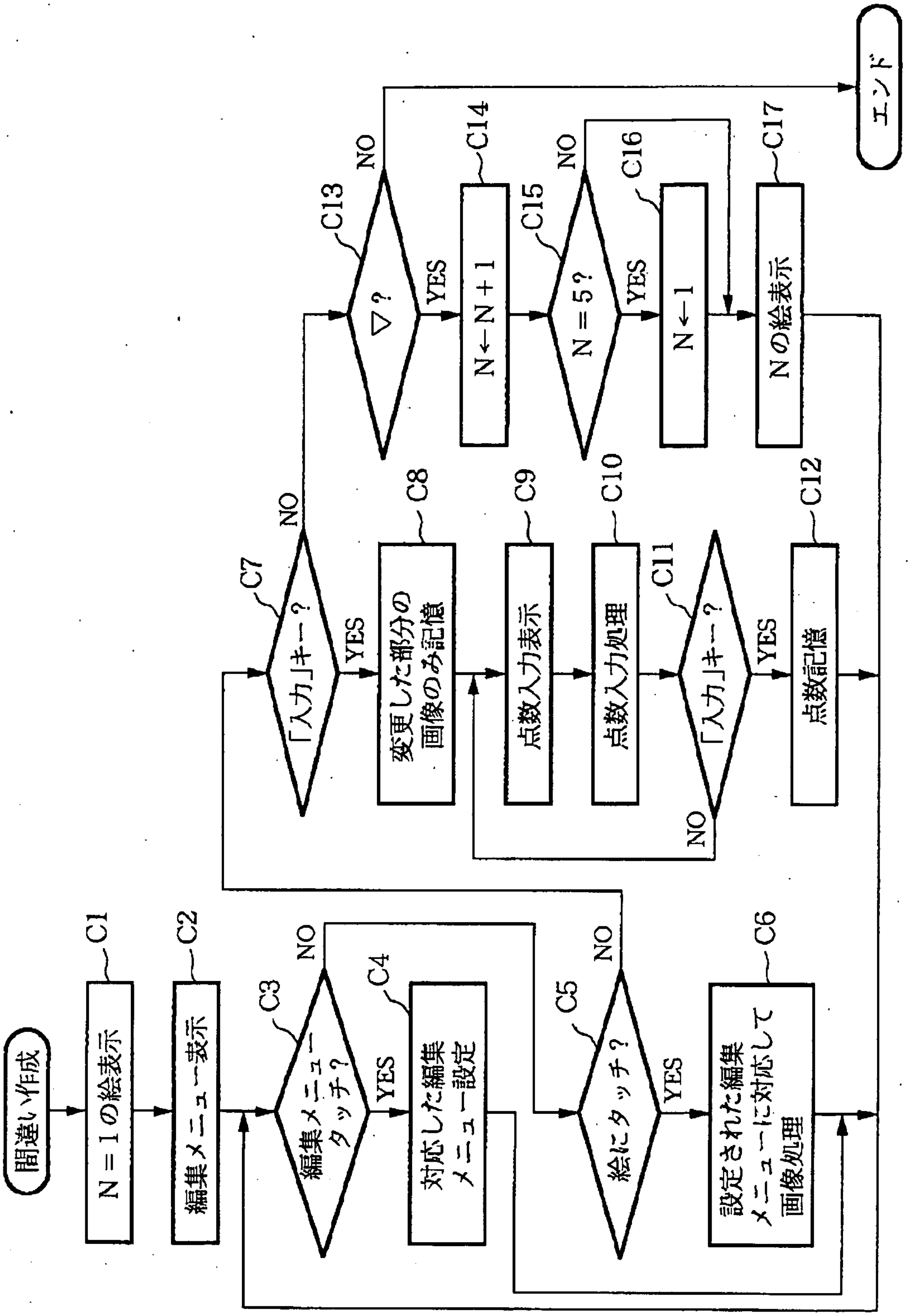
[Drawing 8]


作成
(a)
(b)
(c)
入力 5 入力
点数
5
(d)
▽
(e)

[Drawing 6]


ゲーム処理
B1
「スタート」キー？
NO
YES
N←1 L←0
B2
N番目の元絵読み出し
B3
B4
L＝1？
YES
NO
B5
B6
Nに対応した間違絵をランダムに読み出し
合成して記憶されている間違絵読み出し
元絵と間違絵を合成
B7
表示
B8
B9
タッチ入力有？
YES
NO
B10
NO
1秒？
YES
N←N＋1
B11
B12
NO
N＝5？
YES
L←1
B13
N←1
B14
点数－5
B15
B24
「作成」キー？
NO
他の処理
YES
間違い作成処理
B25
B16
位置検出
B17
間違い部分の位置？
YES
NO
B18
不正解音報音
正解音報音
B19
点数読み出し
B20
点数追加
B21
B22
NO
全問終了？
YES
終了表示
B23
エンド

[Drawing 7]


間違い作成
C1
N＝1の絵表示
C2
編集メニュー表示
C3
編集メニュータッチ？
YES
NO
C4
対応した編集メニュー設定
C5
絵にタッチ？
YES
NO
C6
設定された編集メニューに対応して画像処理
C7
「入力」キー？
YES
NO
C8
変更した部分の画像のみ記憶
C9
点数入力表示
C10
点数入力処理
C11
「入力」キー？
YES
NO
C12
点数記憶
C13
▽？
YES
NO
C14
N←N＋1
C15
N＝5？
YES
NO
C16
N←1
C17
Nの絵表示
エンド

[Translation done.]